METHODS FOR INHIBITING CUTANEOUS INFLAMMATION AND HYPERPIGMENTATION

This application claims priority of and is a continuation-in-part of U.S. Serial No. 09/474,478, filed December 29, 1999, which is a continuation-in-part of U.S. Serial No. 09/306,143, filed May 6, 1999, the contents of which are hereby incorporated by reference into this application.

The invention described herein was made with Government support under grant numbers 1 R29 AR 40514-01A1, 5 P30 041942 and 1-RO1-AR43356-01A2 from the National Institutes of Health. Accordingly, the United States Government has certain rights in this invention.

Throughout this application, various publications are referenced by arabic numerals within parentheses. Disclosures of these publications in their entireties are hereby incorporated by reference into this application to more fully describe the state of the art to which this invention pertains. Full bibliographic citations for these references may be found immediately preceding the claims.

Background of the Invention

The use of murine models to investigate human cutaneous oncology, immunology and keratinocyte biology is advantageous over the use of human skin for obvious reasons. However, substantial differences exist between human skin and murine skin. In human skin, Stem Cell Factor is produced by epidermal keratinocytes after birth, unlike in normal murine skin. The result of this, among other things, is that melanocytes are present in the interadnexal epidermis in human skin. In contrast, melanocytes in adult murine skin are generally confined to hair follicles, with the exception of rare epidermal melanocytes found in the ears, footpads, and tail (1). A few dermal melanocytes may also be found in mice, mostly in the ears. These differences have compromised the use of the mice as a model system for investigation of